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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,033

03/16/2005

Nicolas Berthou

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2704

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EXAMINER

YACOB, SISAY

ART UNIT

PAPER NUMBER

2612

MAIL DATE

DELIVERY MODE

07/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/528,033

Applicant(s)

BERTHOU ET AL.

Examiner

Sisay Yacob

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1 This communication is in response to applicant's amendment to a first non-final office action, which was filed May 14 2007.

2 Arguments to pending rejected claims 1-11 and newly introduced claims 12 and 134 have been entered and made of record in the application of Berthou et al., "Sealed keyboard" filed on March 16, 2005.

Claims 1-11 are same as previously presented.

New claims 12 and 13 are introduced.

Claims 1-13 are pending.

Response to Arguments

3 Applicant's arguments to the rejected claims are insufficient to distinguish the claimed invention from the cited prior art to overcome the rejection of said claims under 35 U.S.C 103(a) as discussed below. Applicant's arguments with respected to the pending rejected claims 1-11 and new claims 12 and 13, filed on May 14 2007, have been fully considered but they are not persuasive for at least the following.

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4 On page 4 and all subsequent applicant's argument with respect to claim 1, as to the Ootani et al., failing to disclose, teach, or suggest all of the claimed limitations.

5 Ootani et al., discloses a sealing means with flexible membrane (Item 6), the rigid key (Item 41), the flexible membrane 6 is attached both to the front face 5 and to the rigid key 41 advantageously by bonding (i.e. the sealing means is engaged into 41 tightly and pressed to 5 tightly so that the space inside is shielded air-tight from the outside environment; Col. 3, lines 44-56).

6 As to applicant's argument that "the flange 62 is pressed to the panel is due to the combination of the wedge 43 and the step 52 that retain the slider 4."

7 Combining multiple components into one to replace by an equivalent one piece is not patentable.

8 As to applicant's argument that "another advantage of avoiding wedge 43 and step 52 is that the noise of the contact between wedge and step is avoided when the slider moves up. In this movement, the slider is only retained by the flexible membrane that is not noisy where it moves."

9 Ootani et al., discloses the noise of the contact between wedge and step is avoided when the slider moves up, wherein, the slider is only retained by the flexible membrane that is not noisy where it moves (Col. 2, lines 35-52).

10 As to applicant's "respect to claim 2, although Ootani discloses with respect to the Fig. 7 embodiment that the cup rubber 6 can be adhered to the upper surface of the panel, this only applies to the Fig. 7 embodiment."

11 Ootani et al., disclosure of Fig. 7 embodiment is disclosed as an alternative embodiment, so if it can be used and/or done in one in one embodiment, it can also, be used and/or applied to the other embodiments.

Claim Rejections - 35 USC § 102

12 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13 Claims 1-5, 7, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent of Ootani et al. (5,821,482).

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14 As to claim 1, Ootani et al., discloses a keyboard (Col. 1, lines 6-10) comprising a switch (Item 71 of figures 5A-B and 6A-B), a rigid key (Items 41 of figures 4A-B, 5A-B and 6A-B), allowing an operator to operate the switch (Col. 4, lines 51-64), a front face having an opening traversed by the rigid key (Item 5 of figures 4A-B, 5A-B and 6A-B), and sealing means preventing particles from penetrating between the rigid key and the opening (Item 6 of figures 4A-B, 5A-B and 6A-B), wherein the sealing means comprise a flexible membrane traversed by the rigid key, attached to the key and to the front face (Col. 3, line 45- Col. 4, line 6).

15 As to claim 2, Ootani et al., discloses wherein the flexible membrane is attached to the rigid key and to the front face by bonding (Col. 3, lines 44-65; Col. 6, lines 1-13).

16 As to claims 3 and 7, Ootani et al., discloses wherein it comprises means of limiting the travel of the rigid key relative to the front face (Item 51 of figures 4A-B, 5A-B and 6A-B).

17 As to claim 4, Ootani et al., discloses wherein the limitation means comprise a shoulder of the rigid key, and in that the shoulder is capable of butting against the front face when the operator presses on the rigid key (Items 44 and 61 of figures 4A-B, 5A-B and 6A-B).

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18 As to claim 5, Ootani et al., discloses wherein the flexible membrane is attached to the rigid key on the shoulder (See figures 4A-B, 5A-B and 6A-B).

19 As to claim 12, Ootani et al., discloses wherein the flexible membrane is cup shaped (Item 6 of figure 3).

20 As to claim 13, Ootani et al., discloses a keyboard (Col. 1, lines 6-10) comprising a switch (Item 71 of figures 5A-B and 6A-B), a rigid key (Items 41 of figures 4A-B, 5A-B and 6A-B) allowing an operator to operate the switch (Col. 4, lines 51-64), a front face having an opening traversed by the rigid key (Item 5 of figures 4A-B, 5A-B and 6A-B), and a flexible membrane (Item 6 of figures 4A-B, 5A-B and 6A-B) traversed by the rigid key (Item 42 of figures 4A-B, 5A-B and 6A-B), attached to the key and to the front face to prevent particles from penetrating between the rigid key and the opening (Col. 3, lines 44-56).

Rejections - 35 USC § 103

21 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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22 The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

23 Claims 6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent of Ootani et al., (5,821,482) in view of US Patent of Dugas et al., (5,612,692).

24 As to claims 6, and 8-11, Ootani et al., does not expressly disclose wherein it comprises means of lighting the rigid key via the inside of the keyboard, and in that the rigid key is transparent.

Dugas et al., discloses a sealed keyboard that comprises means of lighting the key via the inside of the keyboard, and in that the key is transparent (Col. 2, lines 23-40; Col. 4, lines 55-61; Col. 6, lines 15-31; Items 16, 44 and 48 of figure 4).

It would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the keyboard of Ootani et al., by incorporating the means of lighting the key via the inside of the keyboard, as disclosed by Dugas et al., in order to have a keyboard wherein it comprises means of lighting the rigid key via the inside of the keyboard, and in that the rigid key is transparent, because Dugas et al., discloses a

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sealed keyboard that may be removed and cleaned that is shielded from any foreign elements and provide a tactile feedback of key actuation to the user by key illumination.

Conclusion

25 **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

26 A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

27 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sisay Yacob whose telephone number is (571) 272-8562. The examiner can normally be reached on Monday through Friday 8:00 AM - 4:30 PM.

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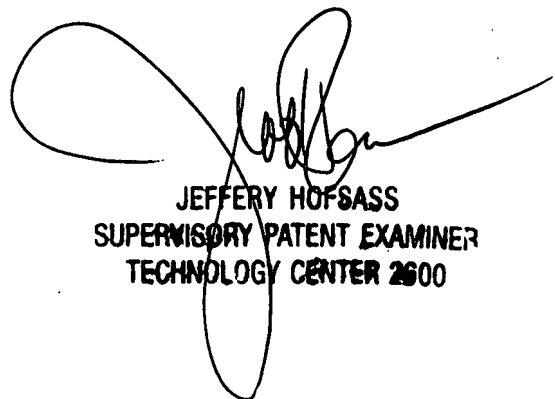
28 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery A. Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

29 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sisay Yacob

6/29/2007

S-Y.



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